IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

WINBOM, H. Atty. Ref.: 4010-37

Serial No. 10/777,219 Group: 3684

Filed: February 13, 2004 Examiner: Vizvary, Gerald C.

For: A MULTI SITE SOLUTION FOR SECURITIES TRADING

Before the Board of Patent Appeals and Interferences

BRIEF FOR APPELLANT

On Appeal From Final Rejection
From Group Art Unit 3684

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

I. REAL PARTY IN INTEREST

The real party in interest is the OMX Technology AB.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals related to this subject application. There are no interferences related to this subject application.

III. STATUS OF CLAIMS

Claims 3, 6, 10, 24-29 are cancelled. Claims 1, 2, 4, 5, 6-9, 11-23 are pending, finally rejected, and appealed.

IV. STATUS OF AMENDMENTS

An amendment dated March 18, 2011 was filed after the final rejection. An advisory action dated May 12, 2011 indicated that the rejection under 35 U.S.C. §112, second paragraph in the final rejection was overcome and withdrawn. As a result, the only rejection remaining for appeal is the prior art rejection under 35 U.S.C. §103.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The independent claims are directed to trading of financial instruments, also referred to as securities or similar entities, at a primary computerized trading exchange site with the use of a secondary "fail-over" computerized trading exchange site. One reason for maintaining a back-up site is to survive a major disaster, which means that it is desirable to maintain a certain minimum geographical distance between the sites. A problem in this context is that the sheer volume of trading information, for practical reasons, limits the transfer of such information to only short distances. The claimed technology achieves the benefits associated with one or more backup sites while also maintaining a sufficient geographic spacing between sites by considerably reducing the amount information which must be transferred to the secondary site.

The following is a mapping of the independent claims onto non-limiting example text from the specification and figures by reference numerals where appropriate. This mapping is not intended to be used for claim construction.

1. A method for trading in securities, the trading being carried out at a primary site that includes a primary site computer (A, Figs. 1a, 1b) according to information received from market makers and traders, said information comprising quotes from market makers and orders from traders for one or more instruments, wherein the primary computer is arranged to communicate over a communications link with a secondary site computer (B, Figs. 1a, 1b) located at a secondary site different from the primary site, the method comprising:

receiving and storing of said information at the primary site computer (220, 320 page 9, lines 22-27 and page 10, line 30-page 11, line 4);

using said information to create deals in said instruments, said deals also being stored at the primary site computer (230, 330 page 9, lines 28-31; page 11, lines 5-8; and page 5, lines 15-19); and

transmitting from the primary site computer to the secondary site computer replicas of the orders and the deals (240, 340 page 10, lines 1-2 and page 11, lines 9-10), but not transmitting from the primary site computer to the secondary site computer replicas of each of the quotes (page 2, line 30-page 3, line 2; page 6, lines 2-7; page 7, lines 29-30).

2. The method of claim 1, further comprising the step of storing at the secondary site computer replicas only of orders which have not yet resulted in deals.

4. An automated system for trading in securities (Figs. 1a, 1b), said system comprising:

a primary site including a primary site computer (A) programmed to:

receive information from market makers and traders, said information comprising quotes from market makers and orders from traders for at least one instrument (210, 310 page 9, lines 22-25 and page 10, line 30-page 11, line 2),

store said information in memory at the primary site associated with the primary site computer (220, 320 page 9, lines 22-27 and page 10, line 30-page 11, line 4),

create deals using said received information and store said deals in the memory at the primary site (230, 330 page 9, lines 28-31; page 11, lines 5-8; and page 5, lines 15-19), and

transmit from the primary site computer to a secondary site computer located at a secondary site physically separate from the primary site replicas of the orders and the deals (240, 340 page 10, lines 1-2 and

page 11, lines 9-10), but not transmit from the primary site computer to the secondary site computer replicas of each of the quotes (page 2, line 30-page 3, line 2; page 6, lines 2-7; page 7, lines 29-30).

5. The system of claim 4, further comprising:

the secondary site including the secondary site computer (B),

wherein the secondary site computer is programmed to store replicas of the deals created at the primary site in a memory at the secondary site associated with the secondary site computer and store replicas only of orders which have not yet resulted in deals (240, 340).

7. A method for use in the automated trading of securities, the trading being carried out using a primary site computer (A) located at a primary site according to information received from market makers and traders, said information comprising quotes from market makers and orders from traders for one or more instruments, wherein the primary computer is arranged to communicate over a communications link with a secondary site computer (B) located at a secondary site geographically remote from the primary site, the method comprising:

receiving and storing said information at the primary site computer (210, 310 page 9, lines 22-25 and page 10, line 30-page 11, line 2);

the primary site computer using said information to create deals in said securities, said deals being stored at the primary site computer (230, 330 page 9, lines 28-31, page 11, lines 5-8, and page 5, lines 15-19);

transmitting from the primary site computer to the secondary site computer replicas of the orders and the deals (240, 340 page 10, lines 1-2 and page 11, lines 9-10), but not transmitting from the primary site computer to the secondary site computer replicas of each of the quotes (page 2, line 30-page 3, line 2; page 6, lines 2-7; page 7, lines 29-30); and

storing at the secondary site computer replicas of the orders and deals (240, 340),

wherein trading of securities is continued at the secondary site in case of a malfunction at the primary site (370, page 6, lines 7-10), in which case the market makers and traders are prompted to submit new quotes to the secondary site (390, page 9, lines 11-16).

8. The method of claim 7, the secondary site computer using a corrective function and the deals stored at the secondary site computer to update the orders stored at the secondary site computer (250, 350 and page 7, line 30-page 9, line 16).

11. The method of claim 7, according to which the replicas stored at the secondary site computer are based on information received at the secondary site directly from the market makers and traders (page 6, lines 17-25).

12. An automated system for trading in securities (Figs. 1a, 1b), said system comprising:

a primary site (A) including:

automated means (computer) for receiving information from market makers and traders, said information comprising quotes from market makers and orders from traders for at least one instrument (210, 310 page 9, lines 22-25 and page 10, line 30-page 11, line 2),

automated means (memory) for storing said information at the primary site (220, 320 page 9, lines 22-27 and page 10, line 30-page 11, line 4),

automated means (computer) for creating deals using said received information (230, 330 page 9, lines 28-31 and page 11, lines 5-8),

automated means (memory) for storing said deals at the primary site (page 5, lines 15-19), and

automated means (computer) for transmitting from the primary site to the automated means located at a secondary site physically separate from

the primary site replicas of the orders and the deals (240, 340 page 10, lines 1-2 and page 11, lines 9-10),

wherein the automated means for transmitting is configured not to transmit from the primary site to the automated means located at a secondary site replicas of each of the quotes (page 2, line 30-page 3, line 2; page 6, lines 2-7; page 7, lines 29-30).

13. The system of claim 12, further comprising:

the secondary site (B),

wherein the secondary site automated means (computer) is configured to store replicas of the deals created at the primary site and store replicas only of orders which have not yet resulted in deals.

14. The system of claim 12, additionally comprising automated means (computer) for transmitting from the primary site to the secondary site the information on which the replicas at the secondary site are based (Figs. 1a, 1b).

15. The system of claim 12, additionally comprising automated means (computer) at the secondary site for receiving information directly from the market makers and traders on which the replicas stored at the secondary site are based (Figs. 1a, 1b).

16. An automated corrective method for use in an automated system for trading in securities (Figs. 1a, 1b), comprising:

passing system information regarding orders from traders and deals for one or more instruments from a primary trading site computer (A) to a secondary site computer (B) located at a secondary site linked to the primary trading site by a communications link (240, 340 page 10, lines 1-2 and page 11, lines 9-10), but not passing from the primary trading site computer to the secondary site computer quotes from market makers for the one or more instruments (page 2, line 30-page 3, line 2; page 6, lines 2-7; page 7, lines 29-30),

storing the system information at the secondary site in a memory associated with the secondary site computer (240, 340 page 10, lines 1-2 and page 11, lines 9-10), and

the secondary site computer using the deal information passed to the secondary site computer to update the order information stored at the secondary site computer (250, 350 and page 7, line 30-page 9, line 16).

20. A computer (B) for use in an automated system for trading in securities, in which system information regarding orders from traders and deals for one or more instruments from a primary trading site computer (A) is passed to and stored at a secondary site located remotely from the primary trading site (240, 340

page 10, lines 1-2 and page 11, lines 9-10) but system information regarding quotes from market makers for the one or more instruments is not passed to and stored at the secondary site (page 2, line 30-page 3, line 2; page 6, lines 2-7; page 7, lines 29-30), wherein the computer is configured for operation at the secondary site to use the deal information passed to the secondary site to update the order information stored at the secondary site (250, 350 and page 7, line 30-page 9, line 16).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The sole question to be decided by the Board is whether the rejection of claims 1, 2, 4, 5, 6-9, 11-23 under 35 U.S.C. §103 as allegedly being obvious based on a combination of Wang and Kramer is improper.

VII. ARGUMENT

The Rejection of Claims 1, 2, 4, 5, 6-9, 11-23 under 35 U.S.C. §103 as Allegedly being Obvious based on Wang and Kramer Is Improper

A. Obviousness Standard

35 U.S.C. §103 withholds issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 405 (2007). Such a

showing requires "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *Id.* at 418 (quoting *In re Kahn,* 441 F.3d 977, 988 (Fed. Cir. 2006)). Therefore, in analyzing a rejection under 35 U.S.C. §103, one must "determine whether there was an apparent reason to combine the known elements in the fashion claimed," *KSR*, 550 U.S. at 418, which means that a person of ordinary skill in the art would have seen a benefit to combining the prior art teachings. *KSR,* 550 U.S. at 424.

The evidence of record is insufficient to show obviousness if it merely suggests "explor[ing] a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it." *In re O'Farrell,* 853 F.2d 894, 903 (Fed. Cir. 1988).

Further, a rejection based on §103 must rest upon a factual basis rather than conjecture or speculation. "Where the legal conclusion [of obviousness] is not supported by the facts it cannot stand." *In re Warner,* 379 F.2d 1011, 1017 (CCPA 1967). See also *In re Kahn,* 441 F.3d at 988.

B. Context for Understanding the Claims in Light of the Specification and Evaluating Them in View of Wang and Kramer

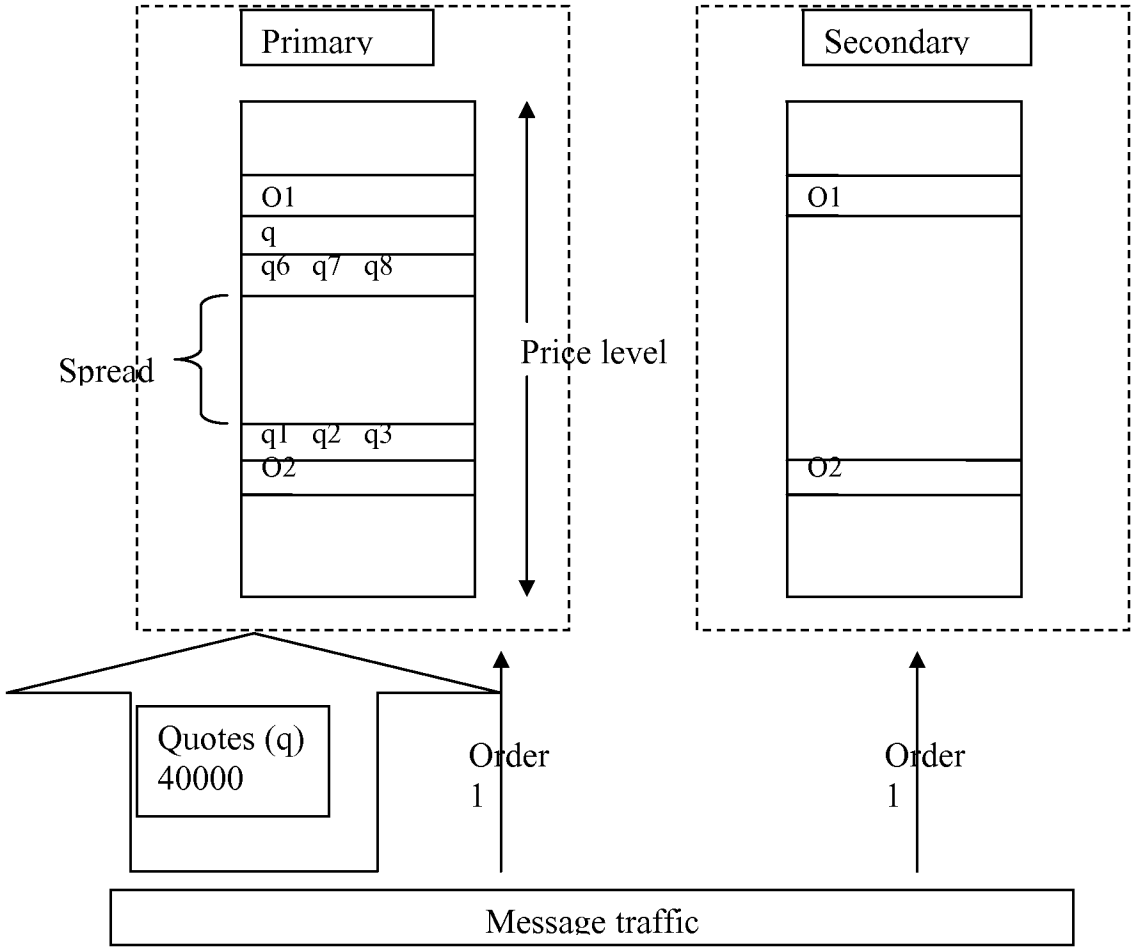
The Board is requested to carefully review the definitions set forth in the specification at page 3, line 29-page 4, line 13 where Applicant specifically

defines the terms order, market maker, quote, deal, and order book. These definitions are repeated here for convenience.

- "Order: an instruction to make a transaction, i.e. to buy or sell a certain amount of a specific instrument (or other entity, where and if applicable) at a given price. Orders are usually received from "investors", i.e. private investors or stock brokers."
- "Market Maker: A party usually contracted by the operator of the trading system, for example a stock exchange, to maintain both buy and/or sell prices (and volumes) in the trading system for certain instruments. There may be some restrictions to this, e.g. that buy and sell prices should not differ more than a certain percentage."
- "Quote: an instruction to a trading system or an exchange containing both buy and sell bids for one or more instrument. Usually issued by market makers, and usually updated quite frequently, making them transient in time."
- "Deal: a match between orders and/or quotes, comprising at least two trades (one buy, one sell) which make up the "legs" of the deal."
- "Order book: a table or a list in a trading system or an exchange etc, comprising all buy and sell orders, as well as all quotes."

One of the reasons for maintaining a secondary back-up site is for a trading exchange to survive major disasters. To do this effectively, one would assume that all of the data from the primary site needs to be provided to the secondary site. A problem with this assumption and with traditional fail-over systems is the sheer volume of information used in some trading systems. Consider a non-limiting

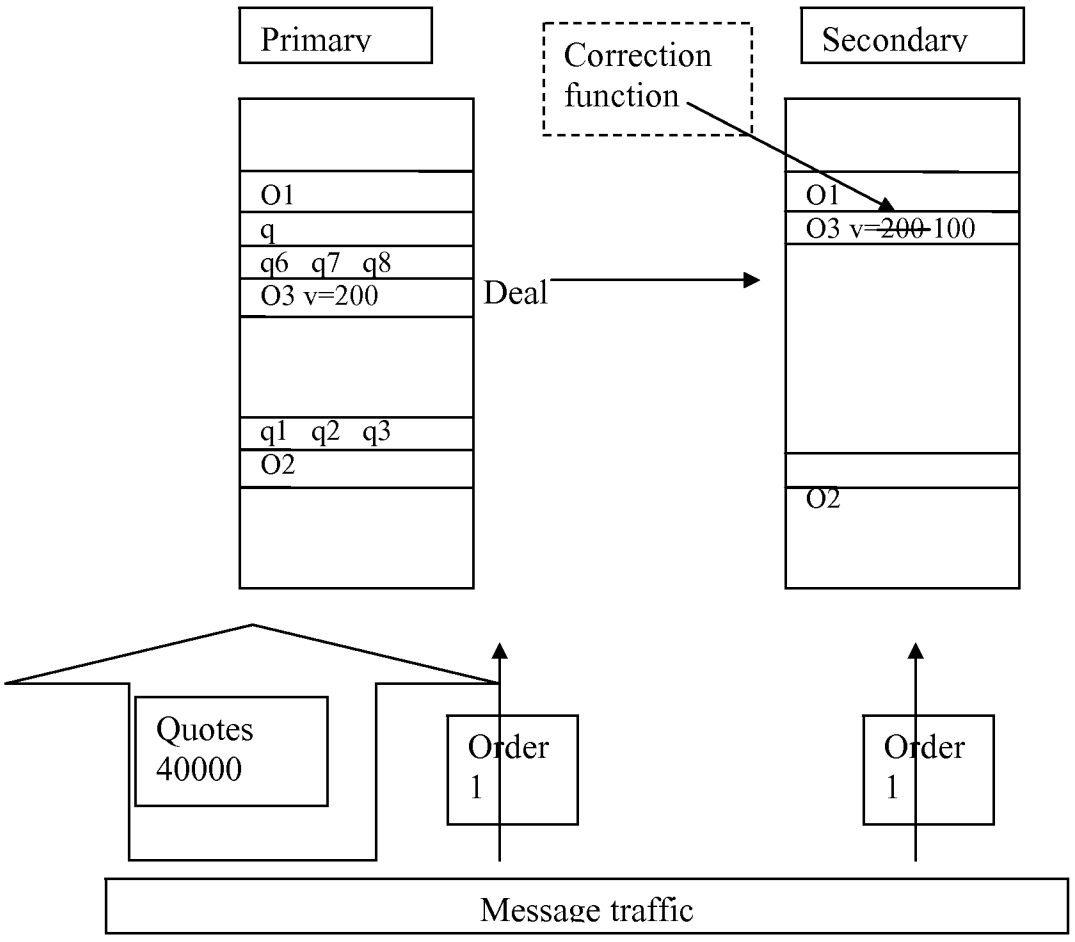
example where the quote/order rate to be stored in an order book is approximately 40,000 to 1 as illustrated in the figure below.



Market makers, being responsible for maintaining a market, usually generate new quotes at least every second for each of the instruments traded on the primary site exchange that they are responsible for. At this kind of re-quote rate, the inventor realized that it is not necessary to transfer the quotes to the secondary site and update the secondary site order book because the market makers will generate another re-quote if the primary site fails. So order and deal information is stored at the primary site and the secondary site—but quote information is not

stored at the secondary site. This results in enormous savings in resources that would otherwise be necessary to have "mirror" image maintained at the secondary site.

Another aspect relevant to independent claims 16 and 20 and various dependent claims relates to updating and corrective functionality at the secondary site that uses deal (match) information at the primary site to update the orders at the secondary site. In the non-limiting example shown below, orders O1 and O2 are stored at both the primary and secondary sites, but not the 40,000 quotes (q). A third order O3



arrives and matches a portion of quotes q6-q8 which are on the same price level (in this example, pro-rata matching is used). Specifically, order O3 is for a volume of 200 contracts, and quotes q6-q8 have a total volume of 100. After the deal (match), order O3 has 100 contracts left, which means that the secondary site needs updating. A corrective function implemented by the secondary site computer uses the primary site deal (match) information to update order O3 to a volume of 100 contracts.

C. The Wang and Kramer References

Wang describes a generic site failover system. Specifically, a controller automatically configures a second host computer to use the data of a first host computer and to provide additional computational resources. There is no distinction between what data is stored at the primary site and what data is stored at the secondary site. Rather, Wang teaches that all data or parts of certain data may be replicated to the secondary site (col. 9, lines 36-56 and col. 10, line 58 to col. 11, line 65). The "data" in Wang comprises operating system information, application program information, and application program data. But Wang does not describe any intelligent selection and transfer of a particular subset of data to the secondary site in combination with using that subset of data to update a larger data set in order to save bandwidth and hardware resources. There certainly is no teaching of doing this in an automated securities trading system.

Kramer describes a trading system that permits traders to use portable trading terminals 112-130 that communicate with a central computer 110 using radio signals 132 as shown in Figure 1. Kramer lists the significant technical features of his invention at col. 10, line 33-col. 11, line 24. Other than being directed to a trading system, those features are not related to the significant technical features included in the pending claims.

D. Wang and Kramer Fail to Teach All of the Features of the Independent Claims 1, 4, 7, and 12[1]

1. Wang and Kramer Lack a Securities Site Computer Executing Trades According to Quotes from Market Makers and Orders from Traders

The Examiner identifies 20:39-45 in Wang as teaching the claimed "method for trading in securities, the trading being carried out at a primary site that includes a primary site computer according to information received from market makers and traders, said information comprising quotes from market makers and orders from traders for one or more instruments," recited in claim 1. But the Wang text at 20:39-45 says nothing about trading securities, market makers, traders, quotes from market makers, or orders from traders.

The final office action (FOA) at page 6 also identifies 3:23-32 and equates Wang's teaching of "performing electronic commerce" with "trading securities, market makers, traders, quotes from market makers, or orders from traders as well

[1] Representative arguments are made for claim 1. Analogous arguments apply to claims 4, 7, and 12.

as creating deals." See page 3 of the FOA. This is unreasonable. Electronic commerce is an umbrella term that covers buying and selling of products or services over electronic systems and therefore includes securities trading via an electronic exchange. But electronic commerce does not teach securities trading via an electronic exchange just like the umbrella term "furniture" does not teach the particular structure of a chair. Moreover, the Examiner fails to point to any text in Wang that actually teaches the claimed features: market makers, quotes from market makers, traders, and orders from traders as those terms are specifically defined in Applicant's specification as explained above. The burden is on the PTO to produce evidence showing where each claimed feature is specifically taught in a prior art reference. Here, that burden is unmet.

2. Wang and Kramer Fail to Teach Receiving and Storing Quotes from Market Makers and Orders from Traders at the Primary Site Computer

For the claim step "receiving and storing of said information [quotes from market makers and orders from traders] at the primary site computer," the Examiner admits this is missing from Wang and turns to Kramer at 13:63-67. While there is posting of a transaction in a primary and secondary "blotter" described here, the Kramer text fails to teach "said information," which as defined earlier in claim 1 includes "information received from market makers and traders, said information comprising quotes from market makers and orders from traders for one or more instruments." Again, the claim terms order, market maker, quote,

deal, and order book are given a specific meaning in Applicant's specification that cannot be ignored by the Examiner. "Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim." See MPEP §2111.01 IV citing to *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301 (Fed. Cir. 1999) (meaning of words used in a claim is not construed in a "lexicographic vacuum, but in the context of the specification and drawings").

In the FOA, the Examiner also quotes text from Kramer at 17:43-48 and 12:3-21. This text is not relevant. First, the PTS 298 is a trader entry terminal and not a primary site (1) where trading in securities is "carried out" and (2) where the claimed "information" is used "to create deals in said instruments, said deals also being stored at the primary site computer," as recited in claim 1. Reporting to the public a particular trader's bids or asks is not the same as carrying out securities trades/deals. Second, the term "quote" as used in context in Kramer is not the same as the claimed quote. Claim 1 differentiates between quotes made by market makers and orders entered by traders. No such distinction is made in Kramer's invention. Col. 11, starting at line 33 makes clear that Kramer's description is focused on "traders" and defines traders as including "those who represent buyers and sellers who are not on the exchange floors." In other words, "traders" in Kramer correspond to "investors" which Applicant's specification defines at page 4, lines 1-2 as entities that enter "orders" but not "quotes." Kramer does not

separately define or identify (1) market makers or (2) quotes made by market makers to maintain a market in a particular security which is what a market maker is obliged to do.

The description at Kramer's 12:3-21 relates to traders entering trade orders using their respective terminals (PTSs) and not performing the trades/making deals. Rather the host 110 performs those functions. See 4:60-66.

Accordingly, Wang and Kramer fail to teach receiving and storing quotes from market makers and orders from traders at the primary site computer.

3. Wang and Kramer Fail to Use Said Information to Create Deals

For the claim step "using said information to create deals in said instruments, said deals also being stored at the primary site computer" recited in claim 1, the Examiner cites to Wang at 41:11-22. There is nothing in this text that describes (1) creating deals in financial instruments or (2) storing such financial instrument deals. The FOA also again points to 3:23-32. But the text "acts of hosting an electronic commerce site on a first host computer, detecting a change in operation of the electronic commerce site, and automatically configuring a second host computer to host at least a portion of the electronic commerce site on the second host computer in response to the act of detecting" is too general to specifically teach creating deals in securities at a primary site that performs securities trading.

4. Wang and Kramer Lack the Final Step of Claim 1

The last step of claim 1 recites "transmitting from the primary site computer to the secondary site computer replicas of the orders and the deals, but not transmitting from the primary site computer to the secondary site computer replicas of each of the quotes." The Examiner relies on 17:2-7 in Wang which explains: "In one embodiment, all of the data used by the primary host computer 110 (i.e., the operating system, application programs, application program data, etc.) is replicated for use by the secondary host computer 120. In other embodiments, only portions of the data of the primary host computer 110 are replicated." The FOA implicitly acknowledges that this text does not teach the quoted claim feature, but instead argues that "only portions of the data of the primary host computer 110 are replicated" includes "the possibility of" the claimed language. But a possibility of only replicating a portion of generic "data" is not a teaching of the claimed features of "not transmitting from the primary site computer to the secondary site computer replicas of each of the quotes." Moreover, the leap from replicating only a portion of some generic "data" to transmitting replicas of securities trading orders and deals but not market maker quotes requires improper hindsight based on the instant application.

5. Wang and Kramer Fail to Recognize the Problems that the Claims Solve

In any §103 analysis, it is important to consider the problem that the inventors in this case identified and solved. The courts have long found that the

problem confronted by the inventors must be considered in an obviousness inquiry. See, e.g., *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 935 (Fed. Cir. 1990); *In re Sponnoble*, 405 F.2d 578, 585 (CCPA 1969) ("[A] patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention under 35 U.S.C. §103.").

The specific trading exchange problems to which the claims are directed, as explained above, are not even identified in Wang. Neither reference teaches the claimed approach in order to reduce bandwidth and resource requirements while at the same time providing a fail safe system. Indeed, Wang teaches the conventional fail safe approach described in the background of this application of sending a "mirrored copy of each volume of data of the primary host computer 110 that is mirrored to a corresponding volume of data that is accessible to the secondary host computer 120." 9:49-54. In the example illustration in the "Context" section above, mirrored copies would include the 40,000 quotes along with the deal and order information. The bandwidth and resource drain in the proposed Wang-Kramer system would be much greater than that required by the claimed technology. In addition, the claimed technology reduces the latency for quotes because they do not need to be replicated.

E. Wang and Kramer Fail to Teach All of the Features of the Independent Claims 16 and 20

Most of the distinctions noted above for claims 1, 4, 7, and 12 apply to claims 16 and 20, e.g., see at least sections D1, D4, and D5 above. For example, claim 16 recites "An automated corrective method for use in an automated system for trading in securities, comprising: passing system information regarding orders from traders and deals for one or more instruments from a primary trading site computer to a secondary site computer located at a secondary site linked to the primary trading site by a communications link, but not passing from the primary trading site computer to the secondary site computer quotes from market makers for the one or more instruments."

Claim 16 also recites "storing the system information at the secondary site in a memory associated with the secondary site computer," and "the secondary site computer using the deal information passed to the secondary site computer to update the order information stored at the secondary site computer." The FOA refers to Wang at 10:58-62 which states that replicated data can be periodically updated to reflect changes at the primary host. But this is general statement that data can be updated is not a particular teaching of the claimed corrective method where a secondary site computer uses securities instrument deal information passed to the secondary site computer to update the securities instrument order information stored at the secondary site computer.

Wang suggests updating the same information X at the secondary computer if information X changes at the primary computer. In contrast, claims 16 and 20 recite that one type of information A (deal information) from the primary computer is used b the secondary computer to update a different type of information B (order information).

F. Wang and Kramer Fail to Teach Additional Dependent Claim Features

The appealed dependent claims are patentable for at least the reasons set forth for their respective independent claim. In addition, neither reference teaches "storing at the secondary site computer replicas only of orders which have not yet resulted in deals" recited in claim 2 which analogous features recited in claims 5 and 13. Wang's general teaching of replicating "only portions of data of the primary host computer" at 17:5-7 is not a specific teaching of replicating "only … orders which have not yet resulted in deals." The Examiner's obviousness argument would mean that a general teaching of only storing so many bits in memory renders obvious floating point arithmetic. This type of argument is unreasonable and certainly not a valid substitute for prior art evidence of what is specifically claimed.

CONCLUSION

There are multiple independent reasons why the obviousness rejection fails to set forth a prima facie case of obviousness for the appealed claims. The final rejection should be reversed, and the application passed to allowance.

Respectfully submitted,

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JRL/maa
Appendix A - Claims on Appeal

VIII. CLAIMS APPENDIX

1. (previously presented) A method for trading in securities, the trading being carried out at a primary site that includes a primary site computer according to information received from market makers and traders, said information comprising quotes from market makers and orders from traders for one or more instruments, wherein the primary computer is arranged to communicate over a communications link with a secondary site computer located at a secondary site different from the primary site, the method comprising:

receiving and storing of said information at the primary site computer;

using said information to create deals in said instruments, said deals also being stored at the primary site computer; and

transmitting from the primary site computer to the secondary site computer replicas of the orders and the deals, but not transmitting from the primary site computer to the secondary site computer replicas of each of the quotes.

2. (previously presented) The method of claim 1, further comprising the step of storing at the secondary site computer replicas only of orders which have not yet resulted in deals.

3. Canceled.

4. (previously presented) An automated system for trading in securities, said system comprising:

a primary site including a primary site computer programmed to:

receive information from market makers and traders, said information comprising quotes from market makers and orders from traders for at least one instrument,

store said information in memory at the primary site associated with the primary site computer,

create deals using said received information and store said deals in the memory at the primary site, and

transmit from the primary site computer to a secondary site computer located at a secondary site physically separate from the primary site replicas of the orders and the deals, but not transmit from the primary site computer to the secondary site computer replicas of each of the quotes.

5. (previously presented) The system of claim 4, further comprising:

the secondary site including the secondary site computer,

wherein the secondary site computer is programmed to store replicas of the deals created at the primary site in a memory at the secondary site associated with the secondary site computer and store replicas only of orders which have not yet resulted in deals.

6. Canceled.

7. (previously presented) A method for use in the automated trading of securities, the trading being carried out using a primary site computer located at a primary site according to information received from market makers and traders, said information comprising quotes from market makers and orders from traders for one or more instruments, wherein the primary computer is arranged to communicate over a communications link with a secondary site computer located at a secondary site geographically remote from the primary site, the method comprising:

receiving and storing said information at the primary site computer;

the primary site computer using said information to create deals in said securities, said deals being stored at the primary site computer;

transmitting from the primary site computer to the secondary site computer replicas of the orders and the deals, but not transmitting from the primary site computer to the secondary site computer replicas of each of the quotes; and

storing at the secondary site computer replicas of the orders and deals,

wherein trading of securities is continued at the secondary site in case of a malfunction at the primary site, in which case the market makers and traders are prompted to submit new quotes to the secondary site.

8. (previously presented) The method of claim 7, the secondary site computer using a corrective function and the deals stored at the secondary site computer to update the orders stored at the secondary site computer.

9. (previously presented) The method of claim 7, according to which an operator or the secondary site computer makes the determination that there has been a malfunction at the primary site, and that the trading should be continued at the secondary site.

10. Canceled.

11. (previously presented) The method of claim 7, according to which the replicas stored at the secondary site computer are based on information received at the secondary site directly from the market makers and traders.

12. (previously presented) An automated system for trading in securities, said system comprising:

a primary site including:

automated means for receiving information from market makers and traders, said information comprising quotes from market makers and orders from traders for at least one instrument,

automated means for storing said information at the primary site,

automated means for creating deals using said received information,

automated means for storing said deals at the primary site, and

automated means for transmitting from the primary site to the automated means located at a secondary site physically separate from the primary site replicas of the orders and the deals,

wherein the automated means for transmitting is configured not to transmit from the primary site to the automated means located at a secondary site replicas of each of the quotes.

13. (previously presented) The system of claim 12, further comprising:

the secondary site,

wherein the secondary site automated means is configured to store replicas of the deals created at the primary site and store replicas only of orders which have not yet resulted in deals.

14. (previously presented) The system of claim 12, additionally comprising automated means for transmitting from the primary site to the secondary site the information on which the replicas at the secondary site are based.

15. (previously presented) The system of claim 12, additionally comprising automated means at the secondary site for receiving information directly from the market makers and traders on which the replicas stored at the secondary site are based.

16. (previously presented) An automated corrective method for use in an automated system for trading in securities, comprising:

passing system information regarding orders from traders and deals for one or more instruments from a primary trading site computer to a secondary site computer located at a secondary site linked to the primary trading site by a communications link, but not passing from the primary trading site computer to the secondary site computer quotes from market makers for the one or more instruments,

storing the system information at the secondary site in a memory associated with the secondary site computer, and

the secondary site computer using the deal information passed to the secondary site computer to update the order information stored at the secondary site computer.

17. (previously presented) The automated corrective method of claim 16, said method being used to monitor the information regarding deals stored at the secondary site computer in order to update the information regarding orders stored at the secondary site computer.

18. (previously presented) The automated corrective method of claim 16, according to which the order information which is passed to the secondary site computer is passed via the deal information stored at the secondary site computer.

19. (previously presented) The automated corrective method of claim 16, according to which copies of the orders and deals are stored at the secondary site computer, and at defined intervals, said orders are processed based on information associated with said deals.

20. (previously presented) A computer for use in an automated system for trading in securities, in which system information regarding orders from traders and deals for one or more instruments from a primary trading site computer is passed to and stored at a secondary site located remotely from the primary trading site but system information regarding quotes from market makers for the one or more instruments is not passed to and stored at the secondary site, wherein the computer is configured for operation at the secondary site to use the deal information passed to the secondary site to update the order information stored at the secondary site.

21. (previously presented) The computer of claim 20 further configured to monitor the information regarding deals stored at the secondary site in order to update the information regarding orders stored at the secondary site.

22. (previously presented) The computer of claim 20, wherein the order information is provided to the secondary site via the deal information stored at the secondary site.

23. (previously presented) The computer of claim 20 configured to store copies of the orders and deals at the secondary site, and at defined intervals, process the orders based on information associated with the deals.

24-29. Canceled.

IX. EVIDENCE APPENDIX

There is no evidence appendix.

X. RELATED PROCEEDINGS APPENDIX

There is no related proceedings appendix.